

Virginia Clean Cities and the Hampton Roads Clean Cities Coalition Status Report

BI-MONTHLY NEWSLETTER

SEPT. AND OCT. 2007



Richmond Terminal Offers Injection Blended Biodiesel

Parker Oil's First Energy terminal in Richmond is the first in Virginia to offer injection blending of biodiesel. Customers can bulk load B2, B5, B10, B20 or B99 blended with ultra low sulfur diesel. Company President Charlie Parker said potential customer demand for additional capacity, such as blending with non-road diesel fuel and high sulfur heating oil, will be evaluated in coming months.

Injection blending at the terminal level of the supply chain ensures a precise and homogenous blend of biodiesel with petroleum diesel. Complete blending is especially important during extreme cold weather, when a poorly blended product can result in very high concentrations of biodiesel, such as B50 or higher,



AI Christopher discusses blending techniques and fuel quality management at the Chesterfield County seminar

settling to the bottom of an end user's bulk storage tank and then being pumped into vehicles.

Extremely high biodiesel blends can be problematic at any time, but especially in cold weather. High blends increase the solvency effect, which can release built-up sediment and other contaminants

in tanks and fuel lines that would not be released by a homogenous B20 blend. Inadequate blending creates even more problems in cold weather. For example, B100 in most cases would begin to gel at around 30F, whereas B20 in winterized petroleum diesel could flow normally even at temperatures approaching 0F or below. Rack injection ensures accurate and effective blending, which is required for good fuel quality. It also dramatically reduces handling costs for biodiesel distributors. Most biodiesel distributors don't have access to injection blending at a supply terminal. Blending at distributor bulk terminals also can be highly effective without large equipment investments, but it (continue on page 2)

Other Items of Interest this Issue

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- New DoE Clean Cities Website, Metrics Report & Alternative Fuel Price Report Available
- DOE Publishes NOPR on Private & Local Fleet Determination
- GM and Weekly Reader's Energy Curriculum Available
- Gov. Kaine Discusses Energy Plan at COVES
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(cont.) Biodiesel Fuel Quality Seminars Series Ends

entails double or triple handling of the blended fuels, thus higher labor costs. The alternative to higher labor costs is significant investment of capital to provide heated storage, metered piping and other hardware needed to ensure proper homogenous blending at the distributor level.

Seminar materials and presentations available on the website provide examples of effective blending practices that can be used by distributors who can-

-not access the First Energy terminal or make large investments in additional bulk plant equipment.

www.hrccc.org/biodiesel/fuelqualityseminars.html

Thanks to Our Sponsors, Hosts, and Speakers for Contributing to a Successful Information Series:

- National Biodiesel Foundation
- Maryland Energy Administration
- Virginia Energy Division (DMME)
- City of Poquoson

- Chesterfield County
- Fairfax County DVS
- Virginia Biodiesel Refinery
- RECO Biodiesel, LLC
- Chesapeake Custom Chemical
- Fuel Management Services, Inc.
- Blue Ridge Clean Fuels
- National Energy Technology Laboratory
- The Association of Energy Conservation Professionals

NAAEE Volunteers Needed for Best Annual Conference Yet!

NAAEE (North American Association for Environmental Education) is holding its annual conference at the Virginia Beach Convention Center November 13 – 18. There will be more than 1,000 attendees and there are many positions available for volunteers. Volunteer opportunities include registra-

tion, session monitors, field trip leaders, auction aides, film festival aides and many more. Most of these opportunities will take place at the Virginia Beach Convention Center, but some will take place at Nauticus in Norfolk and off site. Clean Cities is in need of 1 volunteer to assist vehicle vendors at the alterna-

tive fuel vehicle exhibit, but there are many other opportunities. Ask us for details. The conference this year will be green, feature locally grown food and Virginia wines, and include more fun activities and field trips than you have the energy for. Visit the conference website for more information: www.naaee.org/



Hybrids — A Popular Choice Among Transit Agencies

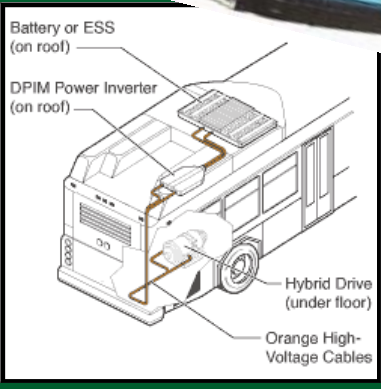
Diesel electric hybrids seem to be a popular choice among large transit agencies these days. Recent purchasers include Hampton Roads Transit, Greater Lynchburg Transit Company, and WMATA.

Michael Carroll, General Manager of Lynchburg Transit, reported they have ordered 8 Gillig diesel-electric hybrid transit buses which are due to arrive by the end of January

2008. Even at a markup of \$200,000 over a traditional diesel bus, Lynchburg decided to test the hybrids. Carroll reported they “expect the buses to offer better fuel economy ranging from 10-40% depending upon duty cycle.” He also reported hybrid technology is well-suited to the typical urban transit operating profile (i.e. low average speed, frequent stop/go operation, etc.). In addition to the obvi-

ous emission improvements, hybrids offer a smoother ride, improved brake life and a significantly quieter vehicle.

Hybrids are a good compromise for organizations that do not wish to install new infrastructure such as would be required for CNG technology. A ribbon-cutting ceremony is planned for late winter after operator training.



HRCCC/VaCC Featured on Front Page of Virginian-Pilot and Underscores the Importance of our Supporters

Thank you for all of the emails reiterating the praise echoed in the Sunday, September 23rd, article of the Pilot. Overall, the article was well written and most importantly conveyed some of the challenges our Coalition faces. It is true that although Coalitions have the difficult task of helping lead the country into a new era of alternative energy fuels and vehicles, we often operate on a shoe-string budget. Furthermore, as modern citizens expect information at very low cost or free, and some of our funding sources are unreliable, we are faced with spending what little capital we have where its most influential – increasing the volume of alternative fuels and efficient vehicles used in fleets. The Virginia Energy Division (DMME) has consistently supported us throughout the years, and supports our efforts to build the market for alternative fuels in Virginia. Without DMME's assistance, our Coalition would be working much harder on fundraising rather than our Coalition's core mission. Secondly, we have many incredible and loyal stakeholders who have continued to support us throughout the years. Thanks to Virginia Natural Gas, the Virginia Soybean Association, James City County, Bauer Compressors, Phillips Energy, American Honda, Griffin Oil and Propane, James River Petroleum, PAPCO, Northrup Grumman, and Domestic Fuels & Lubes.



Dragon Run School Board Meetings Focus on Biodiesel as Possible Preservation Tool

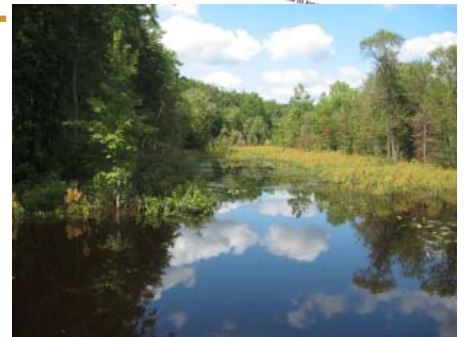
The Dragon Run Biodiesel Project's purpose is to explore biodiesel market viability and its potential to fulfill the goal of providing sustainable natural resource-based economic benefit to the watershed community.

The Coalition has been working with the Middle Peninsula Planning District Commission to build a stakeholder base, form partnerships and investigate the market for biodiesel by sur-

veying local oil distributors and fleets.

Most recently, the Coalition presented a biodiesel partnership and action plan to the School Boards of the 6 county watershed community. This agreement and action plan focus on greater use and production of biodiesel. Some of these activities include: Working with the Coalition to successfully transition to a biodiesel blend; participating in the Clean

School Bus USA biodiesel buy-down program (pending award from EPA); and working with the Coalition to Implement a biodiesel education and marketing program. See www.hrccc.org/biodiesel/dragonrunbiodiesel.html



Roush Now Taking Orders for the F-150 LPI Propane Truck and Medium-Duty Propane Trucks Now Available through CleanFUEL USA Partnership

Roush is taking orders for the F-150 liquid propane injection (LPI) Propane Truck. Initial sales are being targeted at medium and high volume fleets through select Ford dealers in those locations. For an order placed now, expected delivery will be in early January 2008. All inquiries should be directed to Roush's Tom Arnold at 313-806-4299 or tearno@roushind.com. Roush dynamometer test results confirmed there is no loss in horsepower or torque. The F150 will be

equipped with either the standard underbody fuel tank or an extended range in-bed tank. More: www.propanetruck.us/

CleanFUEL USA has teamed up with four companies to introduce a line of LPI, medium-duty trucks based on GM's 8.1-liter Vortec gasoline engine. Interested fleets can get the LPI trucks in two models: the GMC TopKick or the Chevrolet Kodiak. An LPI option is also available in a bus chassis. The LPI vehicles

cost about \$10,000 more than their gasoline counterparts—a \$6,000 saving from a comparable diesel truck. Taxable entities are eligible for a tax credit that equals 50% of the incremental cost of the vehicle, plus an additional 30% of the incremental cost for vehicles with near-zero emissions. The propane used is also eligible for a \$.50/gallon credit. More: http://www.eere.energy.gov/cleancities/ccn/progs/story.php?WHATS_NEW/742/0/A#742

New Clean Cities Websites Offer Updated, Robust Information Including Clean Cities Annual Metrics Report & Alternative Fuel Price Report

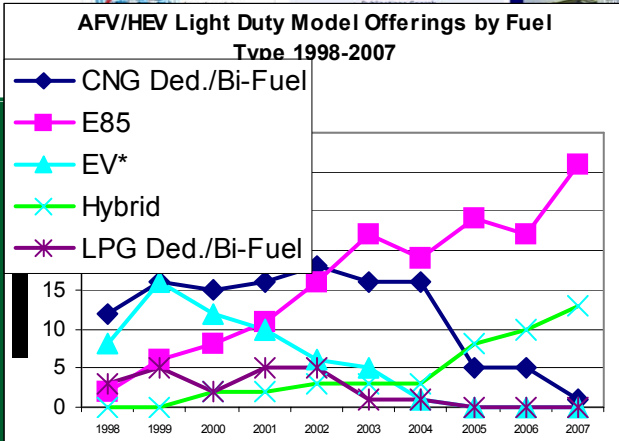


The DOE recently unveiled the new-and-improved Alternative Fuels Data Center (AFDC) and Clean Cities Web sites. The redesigned sites feature a new look, streamlined organization, and more robust technical data.

Not only did the roughly 400-page AFDC Web site get a new look, it was renamed to embrace the growth of advanced vehicle and fuel technologies. Accordingly, it is now called the Alternative Fuels and Advanced Vehicles Data Center. The following new features are on the AFDC website:

- Comprehensive sections highlighting alternative fuels and advanced vehicle technologies: Each major fuel now has a "portal" page that takes users to specific information, including fuel production and distribution, benefits, related publications, stations, and more.
- A new section called "Data, Analysis, and Trends." Users can download charts, graphs, information, and maps showing trends and data related to fuels, vehicles, and other topics.
- A custom query to search for incentives and laws: This new tool allows users to combine results for various states, obtain both federal and state results in one query, and search for specific laws or incentives by type of vehicle, fuel, or application.

The Clean Cities Annual Metrics Report is a comprehensive report summarizing the 2006 program accomplishments of Clean Cities' almost 90 coalitions. It includes the number of alternative fuel vehicles put on the road; amount of alternative fuels used by stakeholders; gallons of petroleum displaced using idle reduction technologies, fuel efficiency measures, and fuel blends; and more. Published quarterly, the Clean Cities Alternative Fuel Price Report provides a list of current prices of alternative and conventional fuels in the United States. Find these two reports here: www.eere.energy.gov/cleancities/ccn/progs/story.php/WHATS_NEW/744/0/A#744



DOE Publishes NOPR on Private and Local Fleet Determination

On September 6th, the DOE published a Notice of Proposed Rulemaking (NOPR) on the potential implementation of an alternative fuel vehicle acquisition mandate for private and local government fleets. The NOPR is the second part of a compliance obligation DOE must complete

under a March 2006 court order.

The new Private and Local Fleet Determination NOPR reflects the revised Replacement Fuel Goal, which was issued by DOE in March 2007 and fulfilled its first compliance obligation under the Court order. The RFG extends the

EPA Act 1992 goal of achieving a production capacity for replacement fuels sufficient to replace 30% of the U.S. motor fuel consumption from 2010 to 2030. More on the DOE Clean Cities site: http://www.eere.energy.gov/cleancities/ccn/progs/story.php/WHATS_NEW/743/0/A#743

GM and Weekly Reader's Energy Curriculum Available Online

Recently, GM and Weekly Reader released a new classroom curriculum, http://www.gm.com/explore/education/teachers/energy_highway.jsp that teachers can use to help students understand the energy challenges facing society today. In an effort to increase exposure of the new classroom material, a sample of the curriculum is now available online. Share it with teachers you know who are working with students in the fifth through eighth grade. The curriculum is available in English and

Spanish. The curriculum will:

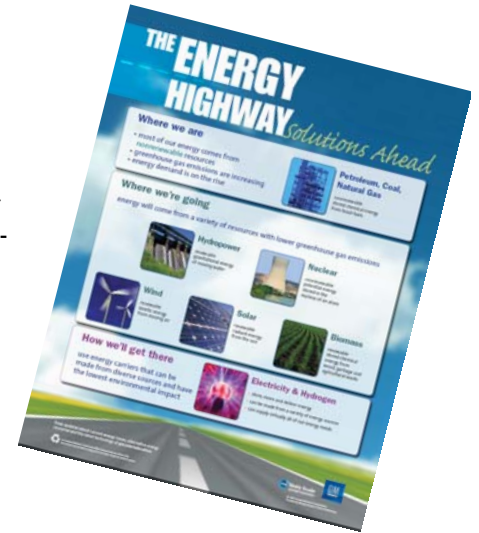
- Help students consider the current issues surrounding energy today, including increasing global energy demand and environmental and economic impacts.

- Explore ways to help reduce petroleum consumption and greenhouse gas emissions by using diverse and renewable energy resources.

- Explore ways to conserve energy and become more energy efficient.

- Demonstrate the benefits of

using renewable energy resources to produce electricity and hydrogen as energy carriers that offer the greatest diversity and lowest environmental impact.



Governor Kaine discusses Virginia Energy Plan at COVES

Conference Presentations Now Available

COVES, a forum to help Virginia businesses, governments and citizens anticipate future energy challenges, featured over 70 presentations and a great networking and information sharing environment.

Governor Kaine stopped by the Commonwealth of Virginia Energy & Sustainability Conference (COVES) on October 17, 2007 to discuss the Virginia Energy Plan.

The Virginia Energy Plan is a proposal to promote the Commonwealth's energy independence and to educate consumers on energy conservation and efficiency. Elements included in the Plan should reduce the rate of growth in energy use by 40 percent, reduce greenhouse gas emissions by 30 percent, and seeks to increase in-state energy production by 20 percent. To

view the Virginia Energy Plan, visit www.governor.virginia.gov/TempContent/2007_VA_Energy_Plan-Full_Document.pdf

To view the presentations from COVES, visit www.energyvacon.org/Program/2007AgendaPPT.htm

UL Announces Certification Requirements for E85 Dispensers

Underwriters Laboratories (UL) has announced the establishment of safety requirements for E85 fuel dispensing equipment. This follows the completion of UL's comprehensive research program to investigate potential safety concerns associated with dispensing highly concentrated ethanol-blended fuels. UL's research indicated that although certain materials found in commercially available dispensers can be expected to perform acceptably when exposed to motor

vehicle fuels blended with high concentrations of ethanol (i.e. E85), some materials experienced significant deterioration during research tests. The new safety requirements address these material compatibility findings. One element of the research program included a long-term conditioning test. Test results were used to assist UL in determining the necessary protocols for evaluating potential degradation of dispenser materials from exposure to E85. With the announce-

ment of these safety requirements for E85 fuel dispensing equipment, UL is now accepting submittals for certification investigations. According to Robert White, director of operations for the Ethanol Information and Promotion Council (EPIC), "UL's announcement removes a major barrier to many companies that have been waiting to offer E85 at their fueling stations." News Source: http://www.eere.energy.gov/afdc/progs/ddownload.php?afdc/WHATS_NEW/756/

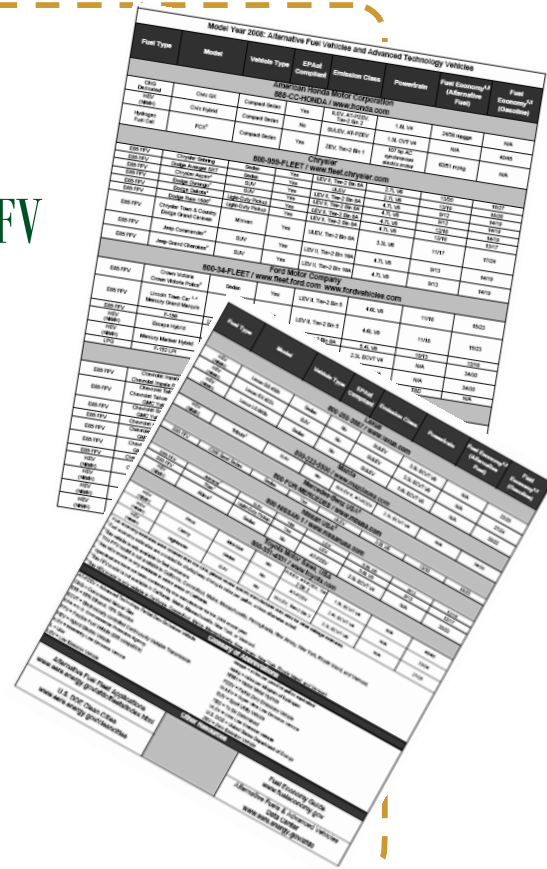


Virginia Clean Cities & the Hampton Roads Clean Cities Coalition

Clean Cities is a government-industry partnership designed to reduce petroleum consumption in the transportation sector by advancing the use of alternative fuels and vehicles, idle reduction technologies, hybrid electric vehicles, fuel blends, and fuel economy. Virginia Clean Cities is one of almost 90 coalition across the U.S. that help meet the objectives of improving air quality, developing regional economic opportunities, and reducing the use of imported petroleum.

**Now Available:
Model Year 2008 AFV
& ATV Guide**

The annual NREL/Clean Cities publication listing model year 2008 alternative fuel and advanced technology vehicles is now available for download on our website. Vehicles are listed by fuel type, model, type, emission class, powertrain, EPAAct compliance, and fuel economy. Visit www.hrccc.org to download.



Calendar of Events

North American Association for Environmental Education Conference
November 13-17, 2008
Virginia Beach, Virginia

Over 1,000 of North America's top environmental educators will attend the NAAEE Conference. This year the conference will be held at the Virginia Beach Convention Center (the first convention center to receive the Virginia Green certification), feature locally grown food and Virginia wines, a film festival, artists and authors corner, an oyster roast, field experiences, an auction, over 200 expert speakers, and much more! Visit: <http://www.naaee.org/conference>

National Biodiesel Conference & Expo
February 3-6, 2008
Orlando, Florida

Held at the incredible Gaylord Palms Resort & Convention Center in Orlando, this years conference will feature a production, technical, fuel distribution, policy/regulation, markets and users tracks. Visit: <http://www.biodieselconference.org/2008/>

Alternative Fuels & Vehicles National Conference + Expo 2008
May 11-14, 2008
Las Vegas, Nevada

The 14th annual conference features more than 200 speakers and is expected to draw 2,000 registrants for four days of activity, including workshops, sessions, networking, a Ride-n-Drive, a free public forum and a trade show for fleets. The tradeshow features over 100 exhibitors displaying products and services available for purchase and use today. Attendees see cutting-edge vehicles and technology from exhibitors who share the practical knowledge their businesses have gained through real-world applications. Event site: <http://www.afvi.org/NationalConference2008/>